CLAIMS

What is being claimed is:

1.   An illumination system comprising:

a set of a pre-determined number of light emitters arranged along a line with N positions, the set being divided in a plurality of subsets, each subset including at least two light emitters, each subset including light emitters with substantially the same light-emission color point, the respective subsets having light-emission color points different from each other, the light emitters of the subset with a smallest number of light emitters being assigned to respective substantially equidistant positions, the light emitters of the set being assigned to the respective positions by iteratively starting with the subset with the smallest number of light emitters, assigning the light emitters of the subset to substantially equidistant positions which are not yet occupied.

2.   An illumination system as claimed in claim 1, wherein the assignment of the light emitters of the set takes into account mirroring effects at a beginning and at an end of the line.

3.   An illumination system as claimed in claim 1, wherein at least one of the subsets of light emitters comprises at least one light emitter with a luminous light output substantially lower than an average light output of light emitters in said subset, said one light emitter being assigned to an area of the line where a distance between light emitters of said subset is smaller than an average distance between light emitters of said subset.

4.   An illumination system as claimed in claim 1, wherein at least one of the subsets of light emitters comprises:

at least a first light emitter with a luminous light output substantially higher than the average light output of light emitters in said subset; and

at least a second light emitter with a luminous light output substantially lower than the average light output of light emitters in said subset;

said first and second light emitter being positioned close to each other relative to positions of other light emitters in the at least one subset.

5.   An illumination system as claimed in claim 1, wherein at least one of the subsets of light emitters comprises at least one light emitter with color tri-stimulus values differing from an average color tri-stimulus values of the light emitters in said subset, said light emitter being assigned to an area of the line where a distance between light emitters of said subset is smaller than an average distance between light emitters of said subset.

6.   An illumination system as claimed in claim 1 comprising at least three subsets of light emitters, the difference in color tri-stimulus values between a first and a second subset being larger than between the other subsets, the light emitters of said first and second subsets being arranged close to each other relative to placement of light emitters from the third subset.

7.   An illumination system as claimed in claim 1, wherein the light emitters are arranged at equidistant positions.

8.   An illumination system as claimed in claim 1, wherein the illumination system comprises a plurality of sets of the pre-determined number of light emitters, the light emitters of each set being arranged along the line.

9.   An illumination system as claimed in claim 8, wherein the light emitters are arranged in an identical manner in each set.

10.   A display device comprising a backlight illumination system, the backlight illumination system comprising:

a set of a pre-determined number of light emitters arranged along a line with N positions,

the set being divided in a plurality of subsets, each subset including at least two light emitters,

each subset including light emitters with substantially the same light-emission color point, the respective subsets having light-emission color points different from each other,

the light emitters of the subset with a smallest number of light emitters being assigned to respective substantially equidistant positions,

the light emitters of the set being assigned to the respective positions by iteratively starting with the subset with the smallest number of light emitters, assigning the light emitters of the subset to substantially equidistant positions which are not yet occupied.

11. A display device as claimed in claim 10, further comprising a liquid crystal display.

12. A method of arranging light emitters in an illumination system, the method comprising:

providing a set of a pre-determined number of light emitters, the set being divided in a plurality of subsets, each subset including at least two light emitters, each subset including light emitters with substantially the same light-emission color point, the respective subsets having light-emission color points different from each other;

arranging the light emitters along a line with N positions, the arranging further comprising:

assigning the light emitters of the subset with a smallest number of light emitters to respective substantially equidistant positions; and

iteratively assigning the light emitters of the remaining subsets to substantially equidistant positions which are not yet occupied, starting with the remaining subset with the smallest number of light emitters.

13. A method as claimed in claim 12, wherein at least one of the subsets of light emitters comprises at least one light emitter with a luminous light output substantially lower than an average light output of light emitters in said subset, the method further comprising:

assigning said one light emitter to a position where a distance between light emitters of said subset is smaller than an average distance between light emitters of said subset.

14. A method as claimed in claim 12, wherein at least one of the subsets of light emitters comprises at least a first light emitter with a luminous light output substantially higher than the average light output of light emitters in said subset, and at least a second light emitter with a luminous light output substantially lower than the average light output of light emitters in said subset, the method further comprising:

assigning said first and second light emitters to positions close to each other relative to positions of other light emitters in the at least one subset.

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15.   A method as claimed in claim 12, wherein at least one of the subsets of light emitters comprises at least one light emitter with color tri-stimulus values differing from an average color tri-stimulus values of the light emitters in said subset, the method further comprising:

assigning said light emitter to a position where a distance between light emitters of said subset is smaller than an average distance between light emitters of said subset.

16.   A method as claimed in claim 12, wherein the illumination system comprises at least three subsets of light emitters, the difference in color tri-stimulus values between a first and a second subset being larger than between the other subsets, the method further comprising:

assigning the light emitters of said first and second subsets positions close to each other relative to positions of light emitters from the third subset.